

## Air Combat Simulator

The system pictured is the Simulator for Air-to-Air Combat (SAAC) used by Air Force pilots undergoing Air Combat Engagement Simulation training at Luke Air Force Base, Arizona. Under the supervision of an instructor who monitors the action from a console, student pilots "fly" simulated Air Force fighters in an engagement with a simulated target whose maneuvers are directed by a computer program. The SAAC was built by Link Division of The Singer Company, Binghamton, New York.

The two-cockpit configuration was designed to train fighter pilots in one-on-one basic fighter maneuvers with an instructor pilot in one cockpit and a student in the other. Through enhancements to computer software

developed by Link for simulation of "two-versus-one" combat, two trainees can simultaneously engage a computer driven target, thereby doubling the training utility of the simulator. The two-versus-one computer program is an adaptation of a NASA-developed program—commonly called One-on-One Adaptive Maneuvering Logic (AML)—supplied by NASA's Computer Software Management and Information Center (COSMIC). Located at the University of Georgia, COSMIC maintains a large library of computer programs developed by NASA and other technology-generating government agencies and makes them available to industry at a fraction of their original cost—thus saving users the time and expense of developing entirely new programs. By adapting COSMIC's AML for two-versus-one simulation, Link Division was able to reduce software and other design/development costs.

